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Tell et al
Case No. CE10835R

Amendment to the Claims:

1. (Previously Presented) A gateway for controlling call routing via a selected network, the gateway comprising:

a controller configured to support and control the functionality of the gateway;

a wireless local area network (LAN) transceiver, coupled to a cooperatively operable with the controller to form an association with a wireless communications unit;

a local loop interface coupled to and cooperatively operable with the controller to support a connection with a local loop; and

a wide area network (WAN) transceiver, coupled to and cooperatively operable with the controller to support a wireless connection with a WAN and forward a message via the WAN corresponding to call routing of the wireless communication unit and when the association with the wireless communications unit changes; and

wherein the call routing of the wireless communication unit identifies whether traffic to the wireless communication unit should be delivered via the local loop or the WAN,

wherein the wireless LAN transceiver cooperatively with the controller receives a call request from the wireless communications unit via a wireless LAN session; and

when the local loop is available, the controller cooperatively with the local loop interface initiates a local loop call request to a public switched telephone network and receives one of a call ringing, a call answer, and a busy signal wherein

the controller together with the local loop interface monitors the local loop for a busy condition;

when the busy condition is detected, the controller cooperatively with the WAN transceiver initiates a WAN call request corresponding to the call request via the WAN and responsive thereto receives, from the WAN, a status message corresponding to one of call ringing, a busy signal, and a call answer; and

the controller together with the wireless LAN transceiver forwards to the wireless communications unit a message corresponding to the status message.

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2. (Original) The gateway of claim 1, wherein the WAN transceiver and the controller operate:

to send a registration message via a WAN session to the WAN, the registration message effecting a call routing update so that calls to the wireless communications unit are routed to the local loop when the association is formed; and

to receive an acknowledgement of the registration message via the WAN session.

3. (Original) The gateway of claim 2, wherein the controller operates to assign a LAN address to the wireless communications unit, responsive to the acknowledgement.

4. (Original) The gateway of claim 1, wherein the WAN transceiver and the controller operate:

to send a deregistration message via a WAN session to the WAN, the deregistration message effecting a call routing update so that calls to the wireless communications unit are not routed to the local loop when the association is no longer available; and

to receive an acknowledgement of the deregistration message via the WAN session.

5. (Original) The gateway of claim 1, wherein the controller:
cooperatively with the local loop interface operates to receive an incoming call indication via the local loop;

cooperatively with the wireless LAN transceiver operates to forward the incoming call indication via a wireless LAN session with the wireless communications unit and receive a response from the wireless communications unit; and

cooperatively with the local loop interface and the wireless LAN transceiver answers an incoming call corresponding to the incoming call indication on the local loop and couples the incoming call to the wireless communications unit via the wireless LAN session when the response is received.

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6. (Cancelled)

7. (Previously Presented) The gateway of claim 1, wherein;
the controller together with the local loop interface monitors the local loop for a busy condition prior to initiating the local loop call request; and
the controller cooperatively with the WAN transceiver sends a message via a WAN session indicating the local loop is busy upon initiating the local loop call request and a message indicating the local loop is idle within a call corresponding to the local loop call request has been completed.

8. (Cancelled)

9. (Previously Presented) The gateway of claim 1, wherein when the status message is a call answer, the controller and the WAN transceiver operate to set up a WAN call and the controller and the wireless LAN transceiver operate to couple the WAN call to the wireless communications unit via the wireless LAN session.

10. (Previously Presented) The gateway of claim 1, wherein:
the controller together with the local loop interface monitors the local loop for a busy condition and when the busy condition is detected further determines whether the busy condition results from another wireless LAN session with the wireless communications unit; and
when the busy condition results from the other wireless LAN session, the controller together with the local loop interface operates to initiate a conference call via the local loop.

11. (Original) The gateway of claim 1, wherein;
the LAN transceiver is operable on one of an IEEE 802.11 network and a HiperLan network; and
the WAN transceiver is operable on one of packet data WAN, a 3G WAN, a UMTS WAN, and a broadband WAN.

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12. (Previously Presented) A method of controlling a call routing via a selected network wherein the selected network being one of among at least a local loop and a wireless wide area network (WAN), the method comprising:

detecting at a gateway a wireless communications unit operable on a wireless local area network (LAN);

establishing a connection between the gateway and the wireless WAN via the wireless WAN;

forwarding a message via the wireless WAN, the message including call routing information for the communication unit wherein the call routing information identifies whether traffic to the communication unit should be delivered via the local loop or the wireless WAN;

receiving a call request from the wireless communications unit via a wireless LAN session;

monitoring a local loop for a busy condition;

when the local loop is not busy, initiating a local loop call request corresponding to the call request to a public switched telephone network and receiving one call ringing, a call answer and a busy signal;

sending a message via a WAN session indicating the local loop is busy upon initiating the local loop call request and a message indicating the local loop is idle when a call corresponding to the local loop call request has been completed

when the busy condition is detected, initiating a WAN call request corresponding to the call request via the WAN and responsive thereto receiving, from the WAN, a status message corresponding to one of call ringing, a busy signal, and a call answer; and

forwarding to the wireless communications unit a message corresponding to the status message.

13. (Original) The method of claim 12, wherein the forwarding the message further comprises forwarding a registration message via a WAN session to the WAN, the registration message effecting a call routing update so that calls to the wireless

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communications unit are routed to a local loop that is coupled to the gateway when the wireless communications unit is detected; and

the method further comprises receiving an acknowledgement of the registration message via the WAN session.

14. (Original) the method of claim 13, further comprising, assigning a LAN address to the wireless communications unit, responsive to the acknowledgement.

15. (Original) The method of claim 12, wherein the forwarding the message further comprises forwarding a deregistration message via a WAN session to the WAN, the deregistration message effecting a call routing update so that calls to the wireless communications unit are not routed to a local loop that is coupled to the gateway when the wireless communications unit is no longer detected; and

the method further comprises receiving an acknowledgement of the deregistration message via the WAN session.

16. (Original) The method of claim 12, further comprising:
receiving an incoming call indication via a local loop;
establishing a wireless LAN session with the wireless communications unit;
forwarding the incoming call indication to and receiving a response from the wireless communications unit via the wireless LAN session; and

when the response is received, answering the incoming call corresponding to the incoming call indication on the local loop and coupling the incoming call to the wireless communications unit via the wireless LAN session.

17-18. (Cancelled)

19. (Currently Amended) The method of claim ~~[[18]]~~ 12, further comprising:
when the status message is a call answer, setting up a WAN call; and
coupling the WAN call to the wireless communications unit via the wireless LAN session.

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20. (Previously Presented) The method of claim 12, further comprising:
when the busy condition is detected, determining whether the busy condition
results from another wireless LAN session with the wireless communications unit; and
when the busy condition results from the other wireless LAN session, initiating a
conference call via the local loop.

21. (Original) The method of claim 12, practiced by a residential gateway
wherein:
the LAN is one of an IEEE 802.11 network and a HiperLan network; and
the WAN is one of a packet data WAN, a 3G WAN, a UMTS WAN, and a
broadband WAN.

22-26. (Cancelled)